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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,301	04/12/2006	Hiroyuki Kojima	215384-104605	9545
44200 7590 08/06/2007 HONIGMAN MILLER SCHWARTZ & COHN LLP 38500 WOODWARD AVENUE SUITE 100 BLOOMFIELD HILLS, MI 48304-5048			EXAMINER HSIEH, SHIH WEN	
			ART UNIT 2861	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/575,301

Applicant(s)

KOJIMA, HIROYUKI

Examiner

shih-wen hsieh

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 8-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4-12-06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

Page 8, line 23, please change "the wiper unit 60" into "the wiper unit 70"

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hisanaga (JP 2002-361879, from IDS dated April 12, 2006, Translation into English has been requested, and it will be send to you once it is available) in view of

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Kojima (JP 406023999A, from IDS dated April 12, 2006) and further in view of Takeshi (JP 2001-270136, from IDS dated April 12, 2006).

In regard to:

Claim 1:

Hisanaga teaches:

An inkjet printer comprising a recording medium feeder, which feeds a recording medium, a printer which carries out a printing for the fed recording medium by ink discharged from a nozzle surface formed on a print head, and a cleaner, which cleans said nozzle surface,

wherein said cleaner includes a wiper blade unit (1, fig. 1) which wipes said nozzle surface with a plurality of wiper blades, and a roller wiper unit (3, fig. 1) which absorbs ink on said nozzle surface by roller members with ink absorbers, refer to the English solution.

The device of Hisanaga DIFFERS from claim 1 in that it does not teach the above underlined portions:

1. a recording medium feeder.

A recording medium feeder is obviously contained in an inkjet printer, although not shown in Hisanaga's invention. Such a feeder is generally called Automatic Sheet Feeder (ASF) usually in the form of a paper cassette, refer to MPEP 2144.03, In re Malcolm, 129 F.2d 529, 54 USPQ 235 (CCPA 1942).

2. a plurality of wiper blade.

Kojima teaches a wiper group (4) having wiper 4a, 4b and 4c, in which 4a and 4b have slits (S) formed in the blade so as to form a plurality of blade, refer to [0015] in "Detail Description of the Invention" and [0029] and [0030] in the "Effect of the Invention".

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include the plurality of wiper as taught by Kojima for the purpose of making the cleaning of the ink jet head more efficacy.

The device of Hisanaga as modified in view of Kojima DIFFERS from claim 1 in that it does not teach:

3. the roller wiper unit having roller members.

Takeshi teaches a roller wiper unit having roller members (24) and (28) for cleaning ink jet head surface (21) of an ink jet head (1), refer to the English Solution.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include the roller wiper unit as taught by Takeshi for the purpose of transferring the waste ink wiped out from the nozzle surface to the roller (28), which functioning as a roller cleaner.

Claim 2:

The inkjet printer according to claim 1, wherein said print head is movable along a carrier guide which elongates linearly, and said recording medium feeder and said cleaner are arranged side by side with each other along a movement direction of said print head.

Rejection:

Hisanaga teaches in his fig. 1 that the print head (2) is movable along a guide rail in the direction a shown by the arrow. Although a guide rail is not shown in Hisanaga's invention, however, such a guide rail is obvious for an inkjet printer, refer to MPEP 2144.03, In re Malcolm, 129 F.2d 529, 54 USPQ 235 (CCPA 1942).

As to: said recording medium feeder and said cleaner are arranged side by side with each other along a movement direction of said print head. It is well known to a skilled one in the art that "the cleaner" is generally disposed in a region, which is outside the printing region to which the feeder is disposed and the printing is conducted, caller Home Position (HP). Such arrangement forms: said recording medium feeder and said cleaner are arranged side by side with each other along a movement direction of said print head, Takeshi's reference provide s such an arrangement, see Takeshi's fig. 1.

Claim 3:

The inkjet printer according to claim 2, wherein said roller wiper unit is placed at a side closer to said recording medium feeder than said wiper blade unit.

Rejection:

Fig. 1 of Hisanaga in the device of Hisanaga as modified in view of Kojima and further in view of Takeshi teach that feature, i.e., the printing region of Hisanaga's print head can be seen as at the right hand side of the wiper holder (4), so that the position of the roller wiper unit (3) with respect to the printing region where the feeder is located is closer to the feeder than that of the wiper unit (1).

Claim 4:

The inkjet printer according to claim 1, wherein said roller wiper unit includes a plurality of roller members, and said plurality of roller members are placed in such a manner as to allow outer circumferences thereof to be pressure-contacted with one another.

Rejection:

Fig. 3 of Takeshi in the device of Hisanaga as modified in view of Kojima further in view of Takeshi teaches such feature.

Claim 5:

The inkjet printer according to claim 4, wherein said roller wiper unit includes a first roller member which is so placed as to be able to contact said nozzle surface, and a second roller member which placed at a position contacting said first roller member but not contacting said nozzle surface.

Rejection:

Fig. 3 of Takeshi in the device of Hisanaga as modified in view of Kojima further in view of Takeshi teaches such feature.

Claim 6:

The inkjet printer according to claim 1, wherein said ink absorbers contain porous materials.

Rejection:

Takeshi in the device of Hisanaga as modified in view of Kojima further in view of Takeshi teaches the roller (24, contacting the nozzle surface 21) is made of porous material, refer to the English Solution.

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As to the second roller (28), since it closely contact with the first roller (24) and functioned as a waster ink remover, it is obviously made of porous material.

Claim 7:

The inkjet printer according to claim 5, wherein said ink absorbers included in said first roller member and said second roller member contain porous materials, and said porous material contained in said ink absorber of said first roller member is coarser than said porous material contained in said ink absorber of said second roller member.

Rejection:

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to select known materials, since it has been held to be within the general skill of a worker in the art to select the known material such that the coarser porous material is for the first roller member than that of the second roller member on the basis of their suitability for the intended use, refer to MPEP 2144.07.

Claim 11:

The inkjet printer according to claim 1, wherein said roller member can be driven as said roller member contacts said nozzle surface which moves.

Rejection:

Fig. 3 of Takeshi in the device of Hisanaga as modified in view of Kojima further in view of Takeshi teaches such feature, see the arrow in roller (24).

Claim 12:

The inkjet printer according to claim 1, wherein said ink absorbers are replaceable.

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Rejection:

It would have been an obvious matter that once the ink absorbers are saturated with waste ink, they will be replaced, refer to MPEP 2144.03, In re Malcolm, 129 F.2d 529, 54 USPQ 235 (CCPA 1942).

Claim 13:

The inkjet printer according to claim 1, wherein said wiper blade is so fixed on an endless belt as to face outward, and formed with a recess portion on the area of said wiper blade through which a nozzle passes upon wiping said nozzle surface.

Rejection:

Slits (S) in Kojima in the device of Hisanaga as modified in view of Kojima further in view of Takeshi teach such recess portion and are fixed on an endless belt (3) facing outward.

***Allowable Subject Matter***

5. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

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The primary reason for the allowance of claims 8-10 is the inclusion of the limitation of wherein said roller member is formed with a gap on the area of said roller member through which a nozzle passes upon contacting said nozzle surface. It is this limitation found in each of the claims as they are claimed in the combination, which has not been found, taught or suggested by the prior art of record that makes these claims allowable over the prior art.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to shih-wen hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 9/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on 571-272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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SWH

*ms*  
July 28, 2007

SHIH-WEN HSIEH  
PRIMARY EXAMINER  
*S. H. Hsieh*